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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/692,699	10/20/2000	Kiyoshi Ueyoko	0229-0612P	7541

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EXAMINER

FISCHER, JUSTIN R

ART UNIT	PAPER NUMBER
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1733

DATE MAILED: 04/25/2003

12

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/692,699

Applicant(s)

UEYOKO, KIYOSHI

Examiner

Justin R Fischer

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 March 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7,9-13 and 15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-7 and 15 is/are allowed.
- 6) ☒ Claim(s) 9-13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

1. Claims 8 and 14 are cancelled per Amendment D on March 3, 2003.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 9-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ueyoko (US 5,772,811, of record). Ueyoko is applied in the same manner as set forth in Paper Number 8, Paragraph 4.

As best depicted in Figure 1, Ueyoko teaches the manufacture of pneumatic tires comprising: a tread portion, a pair of sidewall portions, a pair of bead portions, a carcass ply of cords extending between bead assemblies and having turnup portions that adjoin the main portion above the respective bead assemblies, and a sidewall/bead configuration having the claimed curvature and dimensions. The examiner has pointed out the key tire elements, including the first and second substantially straight linear portions, in Figure 1 of the reference. In this instance, the second linear portion is disposed at an angle that is approximately 16 degrees with respect to the equatorial plane of the tire in accordance to the limitations of the claimed invention. The reference, however, fails to expressly describe an embodiment in which the carcass turnup end point is within a distance of 0.5 times a quantity "gt" from a point Q. While

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the reference fails to expressly suggest this quantitative relationship, it is clearly evident from Figures 1 and 2 that the carcass turnup is extremely close to the point Q, it being noted that the embodiments in Figures 1 and 2 are exemplary and one of ordinary skill in the art at the time of the invention would have readily appreciated the spacing of the claimed invention since the reference generally communicates that the carcass turnup end point and the point Q are extremely close. It is additionally noted that applicant has failed to provide any unexpected results to establish a criticality for the claimed range, wherein the embodiments in Table 1 either having a relevant distance of 0 mm or a relevant distance of 4 times "gt". As such, one of ordinary skill in the art at the time of the invention would have found the outer sidewall profile of the claimed invention to have been obvious in view of Ueyoko, as further detailed below.

With respect to claim 10, Ueyoko does not specifically compare the section height with the height of point P. In any event, the reference does suggest that the height H9 is between 0.1 and 0.3 times the height h_k , measured as the height to the radially outer portion of the carcass along the equatorial plane. Therefore, since the point P is slightly above the height H9 and below the height of the maximum section width, it is evident that the point P necessarily extends between the broad range of 0.15 to 0.4 times the section height.

Regarding claims 11 and 12, Figure 1 of Ueyoko clearly suggests that the first and second linear portions have lengths that fall within the ranges of the claimed invention. It should be further noted, with respect to the first linear portion, applicant has defined said first linear portion as being "substantially straight" and inclined at an angle between ± 5 degrees. Thus, in view of these descriptions, the first linear portion in

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Ueyoko can be viewed as extending from the maximum section width height to the point P (outlined in orange by examiner), wherein the radial extent of said first linear portion would fall within the broad range of 0.05 to 0.40 times the tire section height.

Regarding claim 13, as previously noted, the apex height is suggested to range between 10 and 30% of the carcass height along the equatorial plane, which suggests an apex height that almost directly correlates with the range of the claimed invention since the section height is slightly larger than said carcass height.

With respect to claim 9, applicant has included all the limitations of claim 1 and further required that a third, substantially straight portion extend from the radially inner end of the second linear portion to the vicinity of the bead heel. As described above and depicted in Figure 1 of Ueyoko, all three substantially straight linear portions are suggested by the reference in accordance to the limitations of the claimed invention.

Allowable Subject Matter

4. Claims 1-7 and 15 are allowed for the reasons set forth in Paper Number 8, Paragraph 5. In this instance, applicant has (a) included the limitations of allowable claim 14 into independent claim 1 and (b) drafted allowable, dependent claim 8 as a separate, independent claim (newly drafted claim 15).

Response to Arguments

5. Applicant's arguments with respect to claims 1-14 have been considered but are not found to be persuasive. Applicant argues that Ueyoko fails to provide a quantitative relationship between the distance "gt" and the distance between the carcass turnup end (N) and a point Q on the main carcass portion.

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Ueyoko describes the carcass turnup end as being at a radial height that is greater than the radial height of the bead apex rubber. As depicted in Figures 1 and 2, the carcass turnup end is disposed at a radial position that is extremely close to a point Q, which is defined as a point on the main carcass portion that is perpendicular to the radially inner end of the first linear portion. In this instance, applicant acknowledges that the points "N" and "Q" in the tire of Ueyoko appear to be "extremely close" (Paper Number 11, Page 7). The claim requires that the distance between points "N" and "Q" is less than 0.5 times a distance "gt", wherein the distance "gt" defines the perpendicular distance between the point "Q" and the radially inner end of the first linear portion. While Ueyoko fails to expressly relate the relevant distances, the reference generally communicates a tire design in which the carcass turnup end and a point "Q" are extremely close and it would have been within the purview of one of ordinary skill in the art at the time of the invention to construct an embodiment in which the limitations of the claimed invention are satisfied. In particular, Ueyoko fails to place any specific limitation of the radial extent of the carcass turnup end, only that it is positioned radially outward of the radially outer end of the bead apex rubber. Thus, this teaching in combination with the depiction by Ueyoko in Figures 1 and 2 would have made the construction of the claimed invention regarding the relative positioning of the carcass turnup end and a point "Q" obvious to one of ordinary skill in the art at the time of the invention.

Regarding applicant's contention that the data of Table 1 evidence the criticality of the relevant distances, it is the examiner's position that the data of Table 1 fail to provide a conclusive showing of unexpected results to establish such a criticality. The experiments detailed in Table 1 only provide the following two arrangements: carcass

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turnup is 0 mm from point "Q" and carcass turnup is ± 4 times "gt" from point "Q". While the bead durability and crack resistance is improved for a tire having a relevant distance of 0 mm, as compared to a relevant distance of ± 4 times "gt", the claim requires that the relevant distance is less than 0.5 times "gt"- the results fail to establish a criticality for a distance less than 0.5 times "gt". Additionally, the reference tires in which the relevant distance is ± 4 times "gt" contain multiple dimensions that differ from the inventive tires, such that it is unclear if the realized benefits should be attributed to the distance between the carcass turnup end and the point "Q" or some additional dimension/feature. For example, the length of parallel part in all the tires having a 0 mm spacing is 53 millimeters, while the length of parallel part in the comparative tires having a spacing of ± 4 times "gt" is 93 mm and 10 mm, respectively. Therefore, absent any conclusive showing of unexpected results, one of ordinary skill in the art at the time of the invention would have found it obvious to arrange the carcass turnup end and the point "Q" in accordance to the limitations of the claimed invention.

Conclusion

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.


7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Justin R Fischer** whose telephone number is **(703) 605-4397**. The examiner can normally be reached on M-F (7:30-4:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Ball can be reached on (703) 308-2058. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.


Justin Fischer

April 22, 2003


Michael W. Ball
Supervisory Patent Examiner
Technology Center 1700